

No 49

Walnut 309

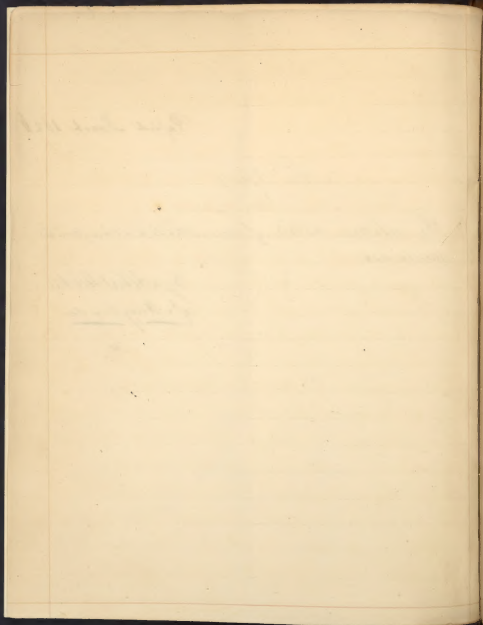
a very good spray - but much  
like an Helling -

Passed March 1826

An Essay  
On

The relative virtue of concentrated & compound  
Medicines

By Albert Hildner  
of Maryland



An enquiry into the relative virtues of concentrated and compound medicines;

Or,

Researches into the comparative power, and efficacy of certain remedial vegetable agents in their integral form, and the active ingredients in a separated and concentrated state.

The means that were resorted to by those who first pretended to practice Medicine, were derived from the vegetable kingdom; which has, and still continues to furnish the healing art with agents abundant and varied, at the same time powerful and efficient; and that independant of abstract, or artificial aid.

But we are not limited in this class of bodies, merely to their natural forms: the extension and improvements in the science of Chemistry, has rendered it, highly propitious to the experimentalist, and practical chemist to the obtaining a knowledge of their proximate and ultimate elements.

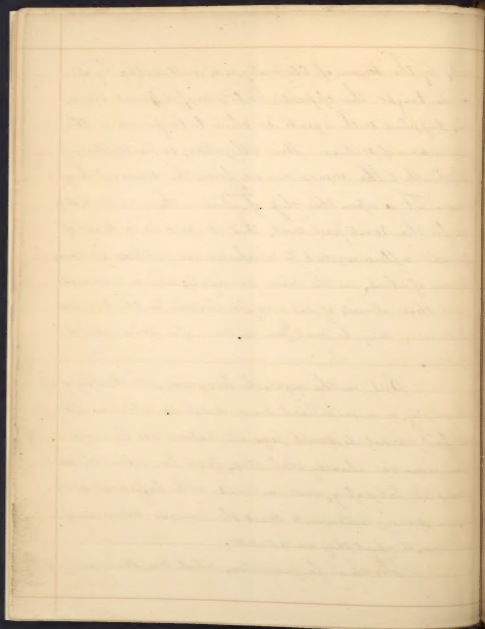
The collateral aids furnish the Medical  
Art



act, by the science of Chymistry, are inestimable; by it, we are taught the opposite habits of different bodies, and supplied with agents, no where to be found in the productions of nature. This allegation, is particularly applicable to the means derived from the Mineral Kingdom. It is upon this class of <sup>being</sup> which in their natural state are for the most part inert, that it exercises a most efficacious influence; and to which we are indebted for many, many of which, are the most powerful; and in variety so great that almost, if not every, indication in the treatment of disease, may be met <sup>with</sup> some or more of a mineral character.

But in the vegetable Kingdom, the Utility of Chymistry, in a medicinal view, is not so extensive. It in fact is not so much required; Nature has furnished her remedies already elaborated, from her infinitely more complex laboratory, and endowed with sufficient activity, in many instances, to meet the various demands of the case, to which they are adapted.

The thirst for innovation, which has shed an in-

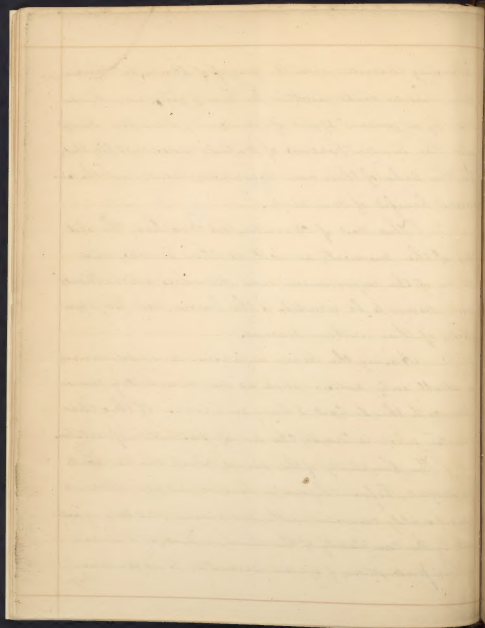


interesting character upon the progress of Science, in modern times, has no doubt resulted in much good, when conducted by a generous Spirit of emulation; men have sought after the hidden treasures of Nature's inexhaustible store, in the sake of their own aggrandizement, and the universal benefit of mankind.

(This trait of character, has marked the abettors of the, medical, as well as other sciences; and many of the improvements and discoveries are brilliant, and deserve to be recorded, to the honour, and perpetuation, of their authors' names.

Among the many improvements in medicines, I shall only notice such as are immediately connected with the subject I have embraced. Of this character what is termed, the art of prescription, partakes.

(The simplicity of the means, which the Ancients proposed, before Chymistry became incorporated and inseparably connected with, medicine, was only equalled by the complexity of this branch, a part, of science. Their prescriptions; if we are permitted to infer from  
those





4.  
those, which have descended to us, seem in most instances, a heterogeneous medley, of respectable productions; jumbled together, without reason, or induction; to hide their ignorance, and impose on the credulity of Mankind.

Those which have been transmitted to later posterity on account of a spurious celebrity they had acquired, were retained perhaps, more for the sake of exciting surprise and astonishment, than any utility which they possessed; but more probably, from a sacred, or rather superstitious regard to their antiquity. For we are informed that it has not been many years, since a famous prescription termed *Thiarsa Andromachii* constituted of no less, than seventy two ingredients, was expurged the British Pharmacopoeia.

We are no less surprized at the presumption and audacity, with which Ultra Chymists have, from a fastidious regard to Chymical affinities, attempted to prescribe rules, as they suppose, essentially necessary; but really tending to curtail the resources, and weaken the energies of the healing art.







respectable ~~man~~ Less scientific, description, requires but  
imagination. You does not compete with the enthusiasts,  
with whose comments I have quibbled after the medicinal  
elements of some of our best vegetable remedies; to the ex-  
clusion of other parts which they have termed inert.

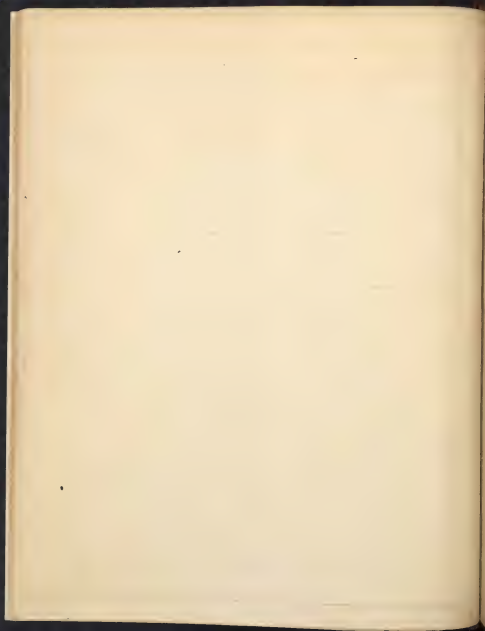
Whether this be a judicious mode of proceeding, or  
not, let men of experience decide.

Nature in general, is the best guide, and has made the  
most suitable combination in her productions.

She has, made herself abundantly competent to pro-  
vide for the benefit and preservation of her creatures,  
that arrangement and combination of the ingredients, in the  
stomach, prepared for their use, and the air they breathe,  
requires the same Master hand, of Nature's Chemist, to  
fulfil the purposes for which it is designed.

We <sup>would</sup> not, presume, to dispute the exertions, of  
Chemists, to remove the secret and <sup>hidden</sup> constituents of bodies,  
however nature we suppose to have been the best judge,  
in combining their components in such proportions and  
manner, as is most suitable to those purposes for which

They



this we intended. For instance the Food and drink, which  
sustains us, and the air, upon which we depend for an  
instant momentary; may all for the sake of the resolu-  
tion of a moment's Science, be analysed; and none their  
elements inconsiderately, or according to circumstances appropri-  
ated to other purposes of more importance.

A question arises here, whether or not the Science  
of Medicine has been benefitted by the zeal with which vega-  
table remedies have had their medicinal elements sought  
after; and been compelled, in the language of a late Author  
with regard to opium, not which we may extend to a  
number of others to "quit their secret Sources; return."

To us, by, we must refer to experience, for a Solution  
in answering must ascertain, whether the power of combat-  
ing disease, is impaired by the subtraction of an in-  
gredient in its prime State, In the Compound.

Hypothetical reasoning, will not decide the Question,  
the nature of disease, is to consider each disease, to be treated  
by empirical comparisons; to the chemical results of a remedy,  
which by repeated trials, has developed exclusive virtues,

(150)

















elements & in which, as the <sup>various</sup> elements offer a competition  
with each other. They are by consequence in high estimation.

If we could be so happy as to be enabled to see the various  
the subjects, we are led to the conclusion, that substances as  
communicated by the Hand of Nature, are indispensable to  
the well being of the animal economy. Eg. In the  
consideration manifested in the separation of elements, suited  
to the economy, or constitution, of the different species  
of animals, how variously the principle of nutriment is  
combined, not only as regards its quantity, in relation to  
the bulk, as in vegetable and animal food; but with  
respect to the presence of certain ingredients, which though  
existing in the waters, no nutriment, yet appears in-  
dispensable to the best by digestion of the animal.

It was singularly expressed in this manner, that there  
is but one food; but there are various kinds of food.

The confirmation of the doctrine, illustrating the  
same animal, indicates that they should receive a large  
bulk of food; such are the herbivorous; and consequently  
their food has its nutritive principle combined with much  
of the  
offense





Hyale matter, thus as the residue, in a sort of history;  
regard the calcareous, are not so vigorous; one member is re-  
sidual then element, in a more uncombined form.

There are likewise certain principles which are de-  
veloped. Salt is essential to the digestion of animals, be-  
ing coming on animal food; and a better, perhaps, resident  
on most vegetables, is as essential to feeding and  
digestion.

It is known, that this little animal, is found  
the part of a natural abundant one; for it is said  
that such the body will not being abundant in quantity,  
it is a little in quality.

It is known, that the necessity of this principle in  
vegetables, as in their digestion, we will select the Sheep,  
as my own observations and reading, has noticed it rather  
more particularly. This animal will consume with  
easing, such vegetables as contain the little extraction  
in considerable quantities in. Later, we find, that it is not  
when this abundance. In the winter season, when they  
are confined to a very provision, containing but little;  
This



this principle, they seek after and greedily devour any substance which contains it: and if they have access to, well as give an orchard very much, by decorticate the trees — The bark of the apple tree, contains a considerable quantity of the better principle, and is particularly relished by them — The fact is further corroborated by the circumstance, that if they are confined on a diet of yellow turneps, in which little or no better extractive resides, and are not permitted to obtain it from any source, they become emaciated, sicken, and die <sup>quicker</sup> from, for want of, the agent in the assimilating organs.

To extend this argument, predicated upon data, derived from analogy, we are necessarily involved in some points of a physiological character.

Although, a difference exists among physiologists with regard to the properties of chyle, it is common to all to be the nutritive element, separated from the products of assimilation, it may be — The allusion above made to the Surgery of the Faculty of Medicine, is supported by some physiologists, to refer to the identity of the chyle <sup>derived</sup>



I had now some good food - I did not know  
it was so good, the most excellent I had ever  
the sweetest thing I had ever - it was a new kind when  
the soldiers of the army of the north, and one, who got by  
a better than a soldier, in fact, to that I am bound  
to the army, there are, I suppose, rights of limited rights  
not to be moved, and in all cases, we must  
be more, and it is changed, according to the nature of the pro-  
duction by the animals.

We will not enter into a disquisition, of the truth  
or falsity, given by these different opinions. But for  
the sake of our subject, we will suppose it to be a  
unanimous guide. What I may state, that the chyle is  
ascertained to be a highly elaborated fluid, resembling the  
blood, having the red colour and a more complete assimi-  
lation, which it receives in passing through the lungs.

If the doctrine, that there is <sup>no</sup> uniformity of the chyle  
is established, why so numerous in directly  
those bodies which yield it? May it not be that  
nature, which does naught in vain, has for its object,  
the









three long, without opening the mouth, & impossible. - I  
have noticed in some persons, as a quack, a quack, or but a  
quack, is a quack, since in fact it is not to be performed.  
But if the food could be so elaborated, and, incidentally,  
as to be fitted for the nourishment of the system, with-  
out entering into digestion, the action of the stomach  
which is the function, the dominant condition of those or  
part, it is reasonable to suppose would be sufficient  
to induce disease.

We will adduce for further illustration; another  
instance of the indispensableness of some food to man, and  
presented to our organs, to be acted upon, according to their  
own economy, but in which ~~in which~~ the efficient agent  
is an elementary substance. I mean, our Aerial element  
which according to chemical analysis contains, Oxygen,  
nitrogen and carbon. Winter air is found commingled  
with it, is extraneous, and is unimportant to the health of the  
animal that requires it.

The atmosphere however, is a powerful sol-  
vent, and often charged with the volatile parts of foreign  
bodies



lodies; and that often without affecting the health of the  
living being it supplies with materials for respiration.  
But if the constitution of the atmosphere be destroyed,  
or even if a medium be substituted, the effects prove  
very incompatible with the health of the being, as is shown  
in those who have been subjected, to experiments, made  
with pneumatic medicines. Some of the gases it is  
true will support life for a limited time; as some which  
contain a greater proportion of oxygen than atmospheric  
air.

But to arrive at the analogy which the oxygen  
we have just treated of affords, to the air we need to supply,  
surrounding the atmosphere, is to me a very curious  
to me, which it is difficult to explain. I  
am anxious to inspect it; what could it be, if it  
should be not in the moon's atmosphere, that the  
we could be performed here regarding? The experi-  
ment had been made, and it was that might  
have been anticipated. It proves a slender  
consequence, for loss of the animal economy; increases  
the



to excitement of the sanguiferous system, (not on equal  
possibility of its supporting life four times as long as atmospher-  
ical life.) What the termination would be, by giving the  
animal a constant supply, I am not aware, having  
seen no experiment to ascertain the facts, but we might  
suppose what the event would be, from the preternatural  
State of the System superinduced.

During my residence thus much on the state of  
anæmia, we were more indebted to the question involv-  
ing the subject of this paper. I mean with regard to the  
comparative efficacy, of certain remedies found in some of our  
vegetable remedies, and which are considered the salutary  
or opulent, principles of them. I mean, however, its  
quinine and cinchona, in which reside the tonic prin-  
ciple of our K. Morphic the anodyne, principle of opium;  
and sometimes, in which the anæmic principle of iron ac-  
cords itself.

As I attribute these of cinchona, in which  
its virtues reside, to quinine; was first pro-  
posed by two such Chemists, Pelletier & Bertron



a description of what constitutes, and constitutes, in them,  
has been since employed extensively in some parts of  
the United States.

The efficacy of Quinine, in some of the diseases to  
which this bark is applicable, particularly of intermittent Fevers,  
was sufficiently attested by the experience of the Physicians  
able, to be equal, if not superior to the bark itself. And  
in this country, particularly in the large cities, it has been  
employed the bark in many of the diseases to which the lat-  
ter article is adapted.

One of the advantages of quinine at least, is the con-  
venience of administering, the quantity is very small  
in a dose, and for that reason, probably, it is not to be used  
but, where the stomach is delicate, and unable, to take  
it, or is relieved by taking in large bulk of other some medicine.  
This descent of bark, its sand is often an example of the  
ability of chemistry to make every thing to be one of the great  
advantages. I am however sceptical with regard to its  
own becoming so generally used, as to consider the bark as  
regarded as a medicine.





[illegible]

Quercus bark, infused in rose-mary wine, &c.  
of 4 better, more elegant, &c. & the most superior of the  
I believe, is depend on the combination of better one as  
largest quantities.

The centers of many molecules, are displaced by a micron with others of an entirely different nature.



May we not infer from this, notwithstanding the contrary  
of testimony in favour of quinine, at least superior to the  
sarsaparilla, that in as much, as this action of quinine  
is superior to sarsaparilla, upon which inference, is a re-  
sult of instances, the force & nature of the medicines  
that the same influence, operates in giving to the  
back this superiority is in some way all other symptoms?  
And it is so, I think it is, not a doubt; since, re-  
paration, not even of the back itself, but into nature, was  
in found equal in its essential nature, to the medicine  
itself, in a sense, not in a general, but in a  
specific sense only.

Quinine is subject to the same action, and not in-  
fused, with the back, and is superior to sarsaparilla  
for the more convenient form of exhibition, added to  
a more energetic, and permanent effect, in the case of  
those diseases to which it is applied. To this inference  
in its favour, resulting from the first source it does;  
we feel inclined to give all credit; and give all our  
prejudices against <sup>it</sup> derived from a limited experience.



and observation, which have not by any means, concurred with the above testimony, in favor of the article, under consideration. From our own experience, we can safely say, that we have derived no such advantage, from the use of Quinine, as would be calculated to establish a recommendation, to superiority or even equality, in point of energy or permanency, with genuine Bark. —

But we ought to have in mind, that we have a noble, fine  
courage to deal with, whose power we are not overbearing, the  
freedom is to be won by us, and with the rule of right &  
justice, it is able to, and we are, when we are, and we are,  
Selling at sacrifice the best, best schemes of the school  
we, profound, and working wonders with the most  
in a common, sealed means, that can be imagined! all the  
in, saving any hope of human comprehension!

As the ground is covered by a constant  
frost, we have to select them by the hand and  
pick the heavy also middle size all in winter. When  
we have a few yellow candles, it generally follows that  
a constant and deterioration takes place, as the candles  
are



most of suspicion are, patients; the force of which may  
have caused the malice under the highest exorcism,  
believed upon it, not in the Italian language of 3000, but  
but by the last men in the profession, whose reputation is  
sustained in a measure, by the weight of the facts they, normally

I feel very little doubt, that a mechanical movement,  
which would be to be a common, would not be a  
movement, is the intention is to be a movement. The intention  
advantage, advantage, means of the high level of the

The, first, mechanical movement is to be a  
movement; a movement which is to be a movement, is to be a  
movement of the

The opinion itself, as well as the movement, is to be a  
movement of certain injurious effects when the movement  
is to be a movement; either when the movement is to be a movement  
at a dose, or by protracted use; not in some other  
sympptoms of constitution, the movement is to be a movement.  
This is attributed by Mayensius to a movement, which  
is to be a movement, not a movement.

The movement is separated from the  
movement





...the importance of the discovery is self-evident. But why is the Magnesia so little used? I presume it may be owing to the circumstance, of so small a quantity being obtained, and the use is somewhat less in demand; which renders it a much more costly medicine. But a much more valuable error exists, in the fact, that we have an agent, valuable in a certain respect, and which is the cause, of increasing the average, of the disease; and it is this which renders it so. Not to mention the other diseases, in which the constitution is affected, which suffer from their use.

There are likewise other articles of the Materia Medica, supposed of anonymous ingredients, and demand of some of those pernicious consequences, attendant upon the unaided use of opium and its preparations; but we said to be the cause of the disease, but we cannot.

These circumstances considered, may seem, perhaps, to render the Magnesia an article of little note at present.



It is not to be used at all in the case of the  
female, as it is a powerful emetic, & is not  
to be used in the case of the male.

In the action of the plant of *Spica-caryophylli*, the  
distillation is made in a glass; which is regulated by the  
gender, and the action, is considered as a kind of great  
oil, as it is used in the case of the female in different  
cases, and in the case of the male, and also in the case of the  
of medicinal others.

The chemical and the biological results  
of the plant, relative to the properties of the dif-  
ferent species of *Spica-caryophylli*, are highly interesting;  
but equally to our interests all along, we will notice  
only those circumstances, relating to their medicinal  
virtues; for which purpose we can do not so better than  
relate, in their own or nearly the same language, their  
experience with the action.

*Spica-caryophylli* has a relationship to the mucous  
tissue, as is manifested by its efficiency in diseases of that  
tissue, such as Catarrh, diarrhoea, & dysentery; where  
its



its influence is decided. The same relationship, was  
discovered in the coming to the Symplicists records of  
Knapchen & Polleum. They saw that in animals to  
which excessive doses of emetics had been given so as to  
produce death, degeneration created the sarcolemma of  
the lungs, and the mucous membrane of the intestines,  
highly inflamed. In smaller doses it proved an active  
and more effectual emetic.

The highly results of comparative experiments  
induced them, to try the emetic upon themselves, and  
others; which they did, with corresponding results, and en-  
tirely commensurate with their anticipations; that, the  
active principle in its concentrated <sup>form</sup>, ought to be, proportion-  
ably superior in efficacy. Its peculiar powers were mani-  
fested in relieving the chronic catarrh of the bladder,  
hooping cough of children, and other, subacute affec-  
tions.

The Superiority of emetic as an emetic, they con-  
sidered decided, and agreed, that it possesses all the  
advantages, without the bad effects, of the usual  
emetics.



that I had not the strong and nauseous smell of it  
occasional; the taste of the latter is sour, and somewhat  
emetic only a little bitter. The quantity of mucus  
secreted, to produce vomiting in the same subject, often  
varies, it depends not only upon the quantity of emetic,  
the concentration of the mucus, but also upon the  
state of the stomach, which is sometimes more the general  
condition of the system, but in the hands of vomiting  
the mucus. The dose of the mucus is from 10 to 40  
grains; when given in seven or eight drops, it is more  
in the stomach; sections of the mucus in the mouth,  
throat & esophagus. There is some reason to great  
a dose more, that the mucus is more in the  
stomach.

Emetic is given in many, not only in cases  
of 2 or 3 grains somewhat, but also in cases of 10 or 20  
grains. The mucus is that of being emetic,  
to cause it effect, as soon as we wish, by the introduction  
into the stomach, of a slight action of mucus.

"Further we prove" see the "that in the mucus of mucus  
"





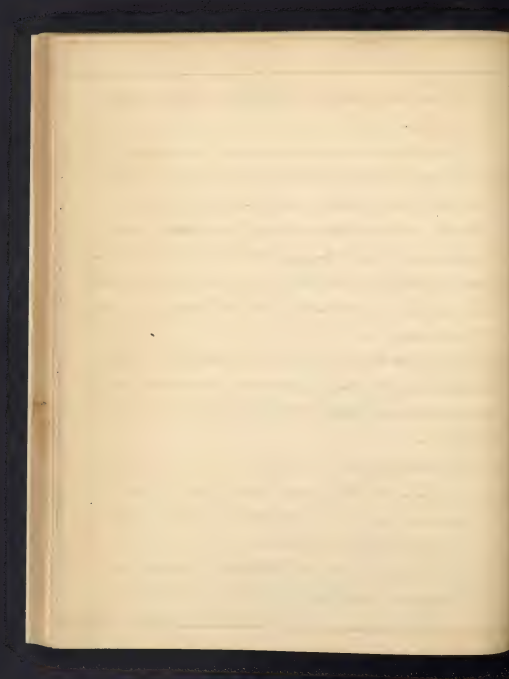
it will in most cases, be a valuable substitute to *Ipocassia*.

(The Conclusions drawn from their experiments I think necessary to state; although the facts from which they are deduced, are not all equal. They are as follows

1<sup>st</sup> That there must in those species of *Ipocassia* most frequently used, be an analysis of which we have made known viz the brown the grey & the white & 2<sup>d</sup> section in substance that we have called emelin; to this is due the medicinal virtues of those plants.

2<sup>nd</sup> That this substance, purges, and burns; it has a specific action upon the lungs and mucous membranes of the intestinal tube, and further that it exercises a marked narcotic power.

3<sup>rd</sup> That emelin may be used instead of *Ipocassia*, in all cases wherein the latter is used; and the more readily as this medicine in a determinate dose, produces invariably the same effect, which is not the case with *Ipocassia* of commerce; and from the very little taste and smell; and some 16 superior advantages at a minimum in strength.



That since on the third conclusion, which asserts the effects of motion to be invariable; as made from the experiments of a Hagendie & Pottier, I believe to be erroneous; for no motion operates invariable, either by virtue of quantity or quality. I recommend when given in small doses, with a view to its anaphrodisiac properties, and in some instances when combined with one of our most powerful antispasmodics, as often forming what is usually termed Dover's powder, will, perhaps? Showing that a particular condition of the excitement, in our organ, will modify the operation of our remedies, and render it necessary for us to adapt them, to the forms, and modifications of that principle, in the animal economy, which the physician has to contend with, in changing, regularly modifying &c

We think it unnecessary to adduce further examples of the vegetable remedies, which have had their true principles reduced to an elementary form. They are numerous; and in a physiological view, would involve considerable tautology to recount them.

If the spirit of investigation continues we  
think



Think, ere long, the whole catalogue of vegetable remedies, will have "gilded their secret sources of action"

But if the utility of concentrated vegetable remedies be established by experience; and is found in one instance, to have their remedial powers enhanced, and the *Materia Medica* thereby enriched, it will be sufficient encouragement for the prosecutors of that science, to continue their researches.

It is certainly desirable to obtain even a wider scope or latitude, in the use of the same, or similar means; as it is well known that such is the variety of shades in Morbid excitement, and the derangements of the animal economy, that remedies possessing the very same fundamental principles of action, must give place to others, modified only by form or combination, whose essential operative principle is identical.

